

Current Status of the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A microscope stage assembly, comprising:
 a stage;
 a microscope stage drive mechanism having an end shaped to be detachably secured to the underside of said stage on the left or the right side of said stage;
 a first engagement means for a microscope stage drive mechanism positioned at a first hole at a first location on the left side of said stage, wherein said end of said drive mechanism is receivable into said first hole to detachably secure said drive mechanism at said first location of said stage; and,
 a second engagement means for said microscope stage drive mechanism positioned at a second hole at a second location on the right side of said stage, wherein said end of said drive mechanism is receivable into said second hole wherein said microscope stage drive mechanism is to detachably secure said drive mechanism at said second location of said stage. securable to said first and second locations.
2. (original) The microscope stage assembly recited in Claim 1 wherein said first location further comprises a rack operatively arranged to engage the microscope stage drive mechanism.
3. (original) The microscope stage assembly recited in Claim 1 wherein said first location further comprising a belt and pulley operatively arranged to engage the microscope stage drive mechanism.
4. (original) The microscope stage assembly recited in Claim 1 wherein said first engagement means further comprising a set screw to detachably secure said stage drive mechanism to said stage.
5. (original) The microscope stage assembly recited in Claim 1 wherein said first engagement means further comprising a spring-loaded ball bearing to detachably secure said stage drive mechanism to said stage.

6. (original) The microscope stage assembly recited in Claim 1 wherein said second location further comprises a rack operatively arranged to engage the microscope stage drive mechanism.

7. (original) The microscope stage assembly recited in Claim 1 wherein said second location further comprising a belt and pulley operatively arranged to engage the microscope stage drive mechanism.

8. (original) The microscope stage assembly recited in Claim 1 wherein said second engagement means further comprising a set screw to detachably secure said stage drive mechanism to said stage.

9. (original) The microscope stage assembly recited in Claim 1 wherein said second engagement means further comprising a spring-loaded ball bearing to detachably secure said stage drive mechanism to said stage.

10. (original) The microscope stage assembly recited in Claim 1 in combination with a microscope.

11. (original) The microscope stage assembly recited in Claim 1 in combination with a microscope stage drive mechanism.

12. (withdrawn) A microscope stage drive mechanism, comprising:
 an inner drive shaft having a plunger head;
 an outer drive shaft, arranged coaxially with respect to said inner drive shaft, said outer drive shaft having a pinion; and,
 a means to detachably secure said microscope stage drive mechanism to a microscope stage.

13. (withdrawn) The drive mechanism recited in Claim 12 wherein said means to detachably secure the drive mechanism further comprises a collar having a groove, wherein said groove is operatively arranged for receipt of an engagement means.

14. (withdrawn) The drive mechanism recited in Claim 12 in combination with a microscope.

15. (withdrawn) The drive mechanism recited in Claim 12 in combination with a microscope stage assembly.

16. (currently amended) An interchangeable microscope stage drive assembly, comprising:
a microscope stage having a hole on the left and a hole on the right side of said stage; and,

a drive mechanism detachably securable positionable to said microscope stage at to more than one location the left and right side of said stage, wherein said drive mechanism is detachably secured to said stage by inserting an end of said drive mechanism in said holes at said right and left side of said stage.

17. (original) The assembly recited in Claim 16 further comprising a set screw to detachably secure said stage drive mechanism to said stage.

18. (original) The assembly recited in Claim 16 further comprising a spring-loaded ball bearing to detachably secure said stage drive mechanism to said stage.

19. (original) The assembly recited in Claim 16 further comprising a belt and pulley operatively arranged to effect lateral movement of a slide holder.

20. (previously presented) The assembly recited in Claim 16 further comprising a rack and pinion operatively arranged to effect lateral movement of a slider holder.

21. (original) The assembly recited in Claim 16 further comprising a belt and pulley operatively arranged to effect forward and backward movement of said stage.

22. (original) The assembly recited in Claim 16 further comprising a rack and pinion operatively arranged to effect forward and backward movement of said stage.

23. (original) The assembly recited in Claim 16 in combination with a microscope.

24. (withdrawn) The assembly recited in Claim 16, wherein said drive mechanism comprises:

an inner drive shaft having a plunger head; and,

an outer drive shaft, arranged coaxially with respect to said inner drive shaft, said outer drive shaft having a pinion.

25. (withdrawn) The assembly recited in Claim 24 wherein said plunger head comprises a frustoconical surface.
26. (withdrawn) The assembly recited in Claim 24 wherein said plunger head comprises a cylindrical surface.
27. (withdrawn) The assembly recited in Claim 24 wherein said plunger head comprises a curved surface.
28. (withdrawn) The drive mechanism recited in Claim 24, wherein said plunger head comprises a friction clutch having the ability to slip.
29. (withdrawn) The drive mechanism recited in Claim 24, wherein said plunger head is spring biased to provide an engaging force.
30. (withdrawn) The drive mechanism recited in Claim 24, wherein said plunger head contacts a drive pulley, said pulley mounted for rotation in said microscope stage.
31. (withdrawn) The drive mechanism recited in Claim 24, further comprising a drive member transferring a driving force to said stage.
32. (withdrawn) The drive mechanism recited in Claim 24, in which said outer drive shaft pinion is a gear.
33. (withdrawn) The drive mechanism recited in Claim 24 in combination with a microscope.